

Scientist of the Month

August 2016



Vanessa Santana

Vanessa is an undergraduate student who grew up in Brazil. As a 2nd Year BLaST Scholar, she has been involved in several research projects, ranging from environmental toxicology to studies linking caffeine with psychological disorders. Vanessa's career goal is to become a veterinarian involved in both clinical practice and biomedical research, as well as to continue her volunteer activities, presently with Alaska Spay/Neuter Assistance Program (ASAP).

Mentoring

In her current research, Vanessa is joined by three undergraduates, including BLaST Scholar Tandi Marth, all mentored by PhD student Swarup Mitra. By working together, these peer mentors intend to become co-authors on a Bult-Ito Lab publication.

The excellent mentorship she has received through this project and others, including the staff at ASAP, Vanessa has been inspired to "pay it forward" and become a mentor for the next generation of students.



Teaching

Over the next year, Vanessa plans to begin tutoring other undergraduates in introductory courses like Chem105/106 and Biol115/116. She especially would like to share her enthusiasm about science.

Research

Vanessa first became engaged in research by participating in a project studying the aging patterns of hoary marmots with Dr. Link Olson at the Museum of the North.

Last year, along with BLaST GMRA John Harley, she continued research on mammals by investigating levels of organic contaminants in sea otter livers. Otters consume clams and mussels, which are also consumed by humans, making otters sentinels of human health.

Currently, Vanessa is working with Dr. Abel Bult-Ito, looking at alterations in neuronal pathways induced by caffeine in a mouse model of obsessive-compulsive disorder. The applications of this research are wide-ranging, as the effects of caffeine have been studied for veterinary use as well as for human health.